

*Q1*

- (i) synthesizing a preselected array of diverse biological polymers connected to cleavable linkers on a solid substrate, whereby the diverse biological polymers occupy different regions of the substrate, and wherein the diverse biological polymers comprise nucleotides, nucleosides, phosphoramidites, carbohydrates or natural or synthetic amino acids;
- (ii) cleaving diverse biological polymers from the solid substrate by cleaving the cleavable linkers, thereby creating a mixture of diverse unbound biological polymers; and
- (iii) measuring presence of diverse unbound biological polymers as an indicator of the efficiency of the synthesizing step.

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*Q2*

10. (Twice Amended) A method for measuring the effect of altering a polymer array synthesis protocol, comprising:

- (i) synthesizing a preselected array of diverse biological polymers occupying different regions on a solid support by a first synthesis protocol, thereby creating a reference array of biological polymers, wherein the diverse biological polymers comprise nucleotides, nucleosides, phosphoramidites, carbohydrates or natural or synthetic amino acids;
- (ii) synthesizing a preselected array of diverse biological polymers occupying different regions on a solid support synthesized by a second synthesis protocol, wherein the second synthesis protocol is different than the first synthesis protocol, thereby creating a test array of biological polymers;
- (iii) cleaving separately the reference array of biological polymers and the test array of biological polymers, thereby creating a mixture of diverse cleaved biological polymers